REMARKS

This paper is responsive to the Office Action mailed February 7, 2011. Claims 1-22 were pending before submission of this paper and were rejected. Claims 2-4, 9, 10, 12, 13, and 22 have been cancelled. Claims 23-26 are new. Editorial amendments have been made to the claims. Support for all new and amended claims can be found in the specification, and no new matter had been added by these amendments.

Claims 1, 5-8, 11, 14-21, 23-26 are presently pending. Reconsideration of the claims in view of the amendment and the following remarks is respectfully requested.

Interview Summary

A telephonic interview was conducted between Examiner Willis and representative Ryan Fox on March 29, 2011. During the interview, the allowability of the claims was discussed, in particular over the Matusis and Agulnick references. Additionally, Mr. Fox noted various disclosures in the application relating to detection of hand movement based on physical contact between a user's hands and various disclosed devices. The Examiner is thanked for providing an opportunity to discuss the case, and it is believed that the foregoing amendments and arguments to follow will further shed light on the topics discussed during the interview, and allowability of the remaining pending claims.

Claim Rejections Under 35 U.S.C. § 103

Claims 1-6, 9-13 and 19-22 were rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over US Publication No. 2003/0048260 to Matusis (hereinafter "Matusis") in view of U.S. Patent No. 5,346,295, to Agulnick (hereinafter "Agulnick"). Claims 2-4, 9, 10, 12, 13, and 22 have been cancelled; their rejections are therefore moot. With respect to pending claims 1, 5, 6, 11, and 19-21, it is respectfully submitted that Matusis and Agulnick, taken either separately or in combination, do not teach each and every recitation of the claims. The Action therefore failed to make a *prima facie* case of unpatentability of claims 1, 5, 6, 11, and 19-21. Claims 1 and 19 are independent.

Claims 1, 5, 6, and 11

Independent claim 1 recites, in part:

> a detection mechanism, including a pressure sensor, configured to:
> *detect one or more changes in physical contact between the body and either the user's right hand, the user's left hand, or both, based at least in part on changes in pressure sensed by the one or more pressure sensors;*
> in response to detecting the one or more changes in physical contact, determine which one of the user's two hands will be used to activate the key; and
> in response to the determining, assign one of the first function or the second function to the activation of the key.

[Emphasis added.] The Action argued that Matusis taught "a detection mechanism configured to detect one or more movements of at least a portion of at least one of the user's two hands toward the key." [Action, at § 4, page 3.] The cited passage of Matusis, however, is directed toward using *images* of a hand in order to performing detection of finger movements:

> Once the user selects a fingertip, he/she is aware of the selected function, however, the system or device on which the user wants to select the function is not. *Imaging 230 is used in order for the system and method of the present invention to determine and identify which fingertip touches and activates the input sensor. . . . After the image is obtained, the image is processed 240 to determine which fingertip touched and activated the input sensor (more details about imaging and processing are provided infra).*

[Matusis, at paragraph 0043; emphasis added.] In the rejection, the Action also cited to "imaging means 1430" of Figure 14 of Matusis. [Action, at § 4, page 3.]

It is respectfully submitted that Matusis' detection mechanisms are based only on collection of images. As such, these imaging mechanisms do not teach or suggest "a detection mechanism configured to detect one or more changes in physical contact between the body and either the user's right hand, the user's left hand, or both, *based at least in part on changes in pressure sensed by the one or more pressure sensors*" as recited in claim 1 as amended. Furthermore, as Matusis does not teach detection of physical changes, Matusis also does not teach or suggest "in response to detecting the one or more changes in physical contact, determine[ing] which one of the user's two hands will be used to activate the key" as recited in claim 1 as amended.

No further relevant teaching is found in Matusis. It is respectfully submitted that Matusis does not teach or suggest at least the above-quoted recitations of claim 1. Furthermore, no relevant teaching is found in Agulnick to remedies the above-discussed deficiencies of Matusis. As such, neither Matusis nor Agulnick, taken separately or in combination, teach or suggest each and every recitation of claim 1.

While US Patent No. 6,888,532, to Wong (hereinafter "Wong") was not relied upon in the rejection of claim 1, it is respectfully noted herein that Wong also does not remedy the above-discussed deficiencies of Matusis and Agulnick. Wong is cited in the Action as allegedly teaching:

> an input device in which pressure sensors (312, Fig. 3) are used to detect how the user is holding the device and thus determine whether the device is in a left-hand mode or right hand mode (col. 2, lines 35-40) and changes the functions of the input accordingly.

[Action, at § 5, page 9.] It is respectfully submitted, however, that Wong does not teach or suggest the above-quoted recitations of claim 1.

The cited portion of column 2 of Wong discloses that:

> Embodiments of the invention include an ambiguous electronic device that can detect orientation information. Components of the ambiguous device, including user-interface features, are configurable based on the detected orientation of the device.

[Wong, at column 2, lines 34-40.] It is respectfully submitted that detection of "orientation information" and "user-interface features" which are "configurable based on the detected orientation" does not teach or suggest either "detect[ing] one or more changes in physical contact" or "determin[ing] which one of the user's two hands will be used to activate the key," in particular, where the detection is based at least in part on change in pressure sensed by pressure sensors Further, the portion of Wong describing the sensors 312 of Figure 3 also fails to teach the recited claim language:

> Sensor system 310 may include a plurality of sensor pads 312. Each sensor pad 312 corresponds to a contact-sensitive surface that detects contact from a user of electronic device 300. . . .
>
> []Individual sensor pads 312 may be actuated by users who contact the sensor pads in the course of gripping or handling electronic device 300. . . .
>
> Orientation information may be detected by identifying the arrangement of sensor pads 312 that are actuated as a result of the user gripping the electronic device 300. For example, components of electronic

> device 300 may be equipped to identify one arrangement of actuated sensor pads 312 as being left-handedness, and another arrangement of actuated sensor pads 312 as being right-handedness. For example, sensor pads 312 may be gripped on one side of back panel 312 (i.e. to the left of axis X) if the user is right handed.

[Wong, at column 5, line 42 to column 6, line 6.] It is respectfully noted that even if, *arguendo*, Wong's sensor pads were to teach the "detect[ing] one or more changes in physical contact" recitation of claim 1, Wong still teaches, at best detecting of "orientation information." Indeed, even in situations where Wong performs user interface configuration, Wong still bases this configuration based on a general orientation (e.g. top/bottom or left/right handed), where actions or all buttons are set at once based on the orientation. [*See*, column 8, lines 24-42.] Further, once an orientation is set in Wong, the buttons perform the same way regardless of whether a left or right hand is manipulating them. [*Id.*] And when button assignment *changes* in Wong, this change is based on a location of the button relative to a reference point:

> For example, the reference point of electronic device 100 may coincide with a user's palm and/or fingers in gripping electronic device 100 . The detection mechanism may determine the left and top side of electronic device 100 relative to the user's grip. Each of the buttons 130 may be assigned an action based on that button's position relative to the user's hand. *For example, any button assigned the top left corner position when electronic device 100 is held by the user is assigned a function for that position.*

[Wong, at column 8, lines 31-37; emphasis added.] As Wong teaches, buttons are only reassigned to give a consistent assignment relative to a position for every orientation. And even when Wong does recognize that a user is left-or-right handed, that information is only used for manipulating a "handwriting input mechanism" and does not appear to result in assignment of buttons or keys. [*See*, Wong, at column 10, lines 56-61.] For at least these reasons, Wong does not teach or suggest "determine[ing] which one of the user's two hands will be used to activate the key" or "in response to the determining, assign[ing] one of the first function or the second function to the activation of the key."

For at least the reasons quoted above, the Action has failed to make a *prima facie* case of unpatentability of claim 1. Claim 1 should be allowable. Furthermore, claims 5, 6, and 11 each depend from claim 1 and incorporate its recitations. Claims 5, 6, and 11 should

therefore be allowable as well. It is respectfully requested that the rejection of claims 1, 5, 6, and 11 be withdrawn and the claims be allowed.

Claims 19-21

Independent claim 19, as amended, recites, in part:

> detecting, kinetically or on a pressure basis, one or more changes in physical contact between the body and either the user's right hand, the user's left hand, or both;
>
> in response to detecting the one or more changes in physical contact, determining which one of the user's two hands will be used to activate the key; and
>
> in response to the determining, assigning one of said first or second character value to the activation of the key if the activation of the key occurs within a pre-defined period of time since said determining.

For at least the reasons discussed above, claim 19 should be allowable over the cited references. Furthermore, claims 20 and 21 each depend from claim 19 and incorporate its recitations. Claims 20 and 21 should therefore be allowable as well. It is respectfully requested that the rejection of claims 19-21 be withdrawn and the claims be allowed.

Claims 7, 8, and 14-16

Claims 7, 8 and 14-16 were rejected under 35 USC 103(a) as allegedly being unpatentable over Matusis in view of Wong and Agulnick. Claims 7 and 8 each depend from claim 1 and incorporate its recitations. Therefore, for at least the reasons discussed above with respect to claim 1, claims 7 and 8 should be allowable over Matusis, Wong, and Agulnick. It is respectfully requested that the rejection of claims 7 and 8 be withdrawn and the claims be allowed.

With respect to claims 14-16, independent claim 14, as amended, recites, in part:

> at least one pressure sensor and associated logic configured to
>
> detect an increase in pressure on the body by either the user's right hand, the user's left hand, or both
>
> in response to detecting the detected increase in pressure, determine which one of the user's two hands will be used to activate the key; and
>
> in response to the determining, assign one of the first function or the second function to the activation of the key.

For at least the reasons discussed above with respect to claim 1, claim 14 should be allowable over Matusis, Wong, and Agulnick. Furthermore, claims 15 and 16 each depend from claim 14 and incorporate its recitations. Claims 15 and 16 should therefore be allowable as well. It is respectfully requested that the rejection of claims 14-16 be withdrawn and the claims be allowed.

Claims 17 and 18

Claims 17 and 18 were rejected under 35 USC 103(a) as allegedly being unpatentable over Matusis in view of US Patent No. 6,538,636, to Harrison (hereinafter "Harrison") and Agulnick. Independent claim 17, as amended, recites, in part:

> a motion sensor and associated logic configured to:
> detect, kinetically, right-to-left or left-to-right movements of at least a portion of the body by either the user's left hand, the user's right hand, or both;
> in response to detecting the one or more movements, determine which one of the user's two hands will be used to activate the key, and
> in response to the determining, assign one of the first function or the second function to the activation of the key.

For at least the reasons discussed above with respect to claim 1, claim 17 should be allowable over Matusis and Agulnick. Further relevant teaching is not found in Harrison. Claim 17 should therefore be allowable. Furthermore, claim 18 depends from claim 17 and incorporates its recitations. Claim 18 should therefore be allowable as well. It is respectfully requested that the rejection of claims 17 and 18 be withdrawn and the claims be allowed.

New Claims 23-26

New claims 23-25 each depend from claim 1 or claim 19 and incorporate their respective recitations. Claims 23-25 should therefore be allowable as well. It is respectfully requested that claims 23-25 be allowed.

Claim 26 recites, in part:

> at least one proximity sensor and associated logic, configured to:
> detect, kinetically or on a pressure basis, that a detected terminating hand member has moved from a non-use position due to the detected terminating hand member moving away from proximity to the terminating hand member proximity sensor;

in response to detecting that the detected terminating hand member has moved from a non-use position, determine which one of the user's two hands will be used to activate the key; and

in response to the determining, assign one of the first function or the second function to the activation of the key.

For at least the reasons discussed above, claim 26 should be allowable over the cited references. It is respectfully requested that claim 26 be allowed.

CONCLUSION

In view of the foregoing amendments and remarks, Applicants believe the applicable rejections have been overcome and all claims remaining in the application are presently in condition for allowance. Accordingly, favorable consideration and a Notice of Allowance are earnestly solicited. The Examiner is invited to telephone the undersigned representative at (206) 407-1577 if the Examiner believes that an interview might be useful for any reason.

It is not believed that extensions of time are required beyond those that may otherwise be provided for in documents accompanying this paper. However, if additional extensions of time are necessary to prevent abandonment of this application, then such extensions of time are hereby petitioned under 37 C.F.R. § 1.136(a). If any fees are due in connection with filing this paper, the Commissioner is authorized to charge the Deposit Account of Schwabe, Williamson and Wyatt, P.C., No. 50-0393.

Respectfully submitted,
SCHWABE, WILLIAMSON & WYATT, P.C.

Date: May 5, 2011

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